UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/631,195	07/31/2003	Gerard Chauvel	TI-35485 (1962-05419)	2163

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EXAMINER
MIZRAHI, DIANE D

ART UNIT	PAPER NUMBER
2165	

DATE MAILED: 08/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	10/631,195	CHAUVEL, GERARD
	Examiner	Art Unit	
	DIANE D. MIZRAHI	2165	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *7-6-06*.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-25* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-25* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

III.   DETAILED ACTION

Claims 1-25 are presented for examination. Receipt of the Amendment of July 6, 2006 is acknowledged. Claim objection of Claim 10-11 and 35 USC 101 is hereby withdrawn.

In response to communications filed on July 6, 2006, Claims 1-25 are pending in the application. Applicant's arguments have been reconsidered but are not deemed persuasive for the reasons set forth below.

Response to Applicant's Remarks

Examiner has completed a through review and study of Applicant's amendment of July 6, 2006. Examiner acknowledges that Claims 1-25 remain in the application. Examiner maintains 35 USC 102 Claim Rejection. (See office action dated February 4, 2006 incorporated wherein see below):

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-25 are rejected under 35 U.S.C. 102(e) as being anticipated by Kelvin D. Nilsen et al. (U.S. Patent No. 6,081,665 and Nilsen hereinafter).

Regarding Claim 1, Nilsen teaches a system, comprising: memory device (col 5, lines 54-63); counter coupled to the memory device(col 18,lines 57-65), wherein the counter is adapted to monitor memory consumption of the memory device for one or more programs(col 17,lines 60-67 to col 18,lines 1-43); a plurality of processors coupled to the counter, wherein one of the plurality of processors within the system is coupled to a garbage collector adapted to free a portion of unused memory(col 17,lines 60-67 to col 18,lines 1-43); and wherein executing the garbage collector (col 4,lines 63-67)is triggered based on a value of the counter (col 31,lines 20-31)(col 5 ,lines 1-5).

Regarding Claim 2, Nilsen teaches wherein the value is a programmable threshold value, and wherein when the counter reaches the programmable value, the garbage collector is triggered (col 39, lines 42-45).

Regarding Claim 3, Nilsen teaches wherein upon reaching the programmable threshold value, the counter sends an interrupt value to the processor, which executes the garbage collector (col 38, lines 4-10).

Regarding Claim 4, Nilsen teaches a software process is regularly polling the counter to check if the predetermined threshold value has been reached, and wherein upon reaching the predetermined threshold value, the garbage collector is triggered (col 47,lines 30-65)(col 17, lines 45-63).

Regarding Claim 5, Nilsen teaches wherein the system further comprises a decoder coupled to the counter, wherein upon decoding an instruction requesting memory allocation, the counter is updated with an estimated memory usage value for the (col 42,lines 59-67 to col 43, lines 1-3)(col 43, lines 23-28)

Regarding Claim 6, Nilsen teaches wherein the system further comprises a micro-sequence replacing an instruction requesting memory allocation, wherein upon executing an instruction from the micro-sequence requesting memory allocation, the counter is updated with an exact memory usage value for the instruction (col 42,lines 59-67 to col 43,lines 1-3)(col 43, lines 23-28).

Regarding Claim 7, Nilsen teaches wherein the counter is updated by a value stored within the memory device (col 42, lines 57-67)(col 43,lines 22-42).

Regarding Claim 8, Nilsen teaches wherein a software process is triggered by an instruction that requests memory allocation, and wherein prior to performing or requesting another memory allocation task, the software process increments a counter indicative of the memory consumed (col 4,lines 63-67 to col 5, lines 1-5).

Regarding Claims 9-25, these claims are similar in scope to the rejected claims above and are therefore rejected as set forth above.

Regarding Applicant's remarks that the prior art, Kevin Nilsen does not teach Applicant's claimed invention, Examiner asserts that Nilsen clearly teaches Applicant's claim invention of garbage collection. Nilson teaches performing efficient defragmenting real-time garbage collection as cited in the Office Action dated February 4, 2006. Nilsen teaches Applicant claimed, "triggering a garbage collector to free a portion of the memory...." (see Nilson's "An interrupt trigger and tracking of the lowest point to which the pointer stack has shrunk during execution of the current time slice. When this task is preempted, all of the pointers between the low-water mark and the current top-of-stack pointer are tended" and "For objects residing in the mark-and-sweep region, the Scan List field distinguishes objects that have been marked from

those that have not been marked. At the start of garbage collection, every object's Scan List field

has the NULL value, which is represented by the symbolic constant SCAN.sub.-- CLEAR. When

an object is recognized as live, it is marked by inserting the object onto a list of objects needing

to be scanned. This list is threaded through its Scan List field. To identify the last object on the

scan list, its Scan List field is assigned the special value 0.times.01, which is represented by the

symbolic constant SCAN.sub.-- END. For objects residing on a free list within the mark-and-

sweep or to-space regions, the Scan List field has the special value 0.times.ffffffff, represented

by the symbolic constant SCAN.sub.-- FREE." (Detailed Description paragraph 542).

Applicant's remarks are considered moot, and does not place the application in condition

for allowance. Examiner asserts that "every limitation positively recited in a claims was given

effect in order to determine what the subject matter that the claim defines" In re Wilder, 166

USPQ 545, 548 (CCPA 1970). Examiner believes that claims 1-25 are not allowable over the

prior art of record cited in this Final Office Action.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,
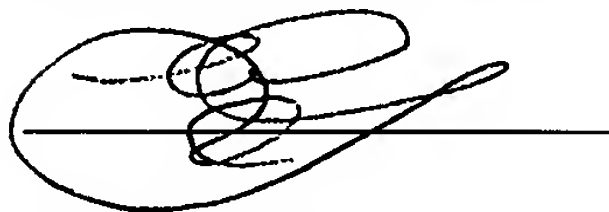
however, will the statutory period for reply expire later than SIX MONTHS from the mailing

date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Diane D. Mizrahi whose telephone number is 571-272-4079. The

examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Jeffrey Gaffin can be reached on (571) 272-4146. The fax phone numbers for the

organization where this application or proceeding is assigned are (703) 872-9306 for regular

communications and (703) 305-3900 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding

should be directed to the receptionist whose telephone number is (703) 305-3900.

Diane Mizrahi
Primary Patent Examiner
Technology Center 2100

August 26, 2006